Aerial Delivery

Equipment Group

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Aerial Delivery

A tri-annual publication for the Aerial Delivery Community

Volume 8, OCT 05

Aerial Delivery Equipment Group Supports Hurricane Katrina Effort

Long-haul Truckers of the Sky Save Lives

Riggers Support The War Fighter's Mission In Iraq

Published by Aerial Delivery Equipment Group, Integrated Logistics Support Center, Natick, MA

ADM Aerial Delivery Magazine

Publisher's Corner

While it is back to school for many this September, it has been back to the drawing board for those of us in the Aerial Delivery Equipment Group (ADEG) responsible for the magazine layout and editing. As a result, this edition includes newer layouts, better quality pictures and an overall more professional look. As the magazine continues to grow, we will continue to bring you the information you need, when you need it, along with compelling stories of interest to the aerial delivery community. As always, we encourage your feedback on the magazine and any suggestions, comments or articles you would like to submit. If you would like to submit an article of interest to the Aerial Delivery community, contact Ms. Michelle Sullivan at michelle.sullivan@us.army.mil. We hope you enjoy this edition!

In addition to the magazine, the entire team has been working diligently to make plans for our third annual manufacturer's week scheduled for the beginning of October 05 at Fort Bragg, NC. The purpose of the week is to observe US Army Soldiers using aerial delivery products (parachutes and related items), interact with the soldiers to discuss mutual equipment issues and concerns, and provide manufacturers with a solid foundation for future aerial delivery product innovations and improvements. We look forward to meeting new people and participating in the planned activities, which include a few new ones this year. The next edition of the magazine will feature our week in North Carolina.

Lastly, during the first few weeks in September, our office has been working closely with many organizations in the relief efforts for those areas devastated by Hurricane Katrina. While not geographically close to the affected areas, we in the Aerial Delivery Equipment Group are grieving along side our fellow Americans and doing whatever is in our power to assist those who have survived. As stated in the US Army Civilian Creed, we in the ADEG will continue to support the mission and be dedicated to the Army, its Soldiers and Civilians.

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Have an article to submit? Call Michael Maloney at (508) 233-5693 or e-mail at Michael.Maloney@natick.army.mil

Submit your Airdrop photos to the Aerial Delivery Magazine, we could feature your photo on the Cover! E-mail at Michael.Maloney@natick.army.mil

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Air Force loadmasters aboard a C-17 Globemaster inspect containers loaded with humanitarian daily rations enroute to Afghanistan. Photo by Staff Sgt. Jeremy T. Lock, USAF

Aerial Delivery Equipment Group Mission

Provide streamlined, innovative and robust total life-cycle logistics and materiel readiness to DoD organizations, Foreign Military, and the Aerial Delivery Community

UP, UP, AND AWAY — Sailors hook cargo nets to a Puma helicopter during a vertical replenishment on the flight deck of USS Harry S. Truman. The Truman and Carrier Air Wing 3 are currently deployed on a six-month cruise in support of Operation Enduring Freedom. U.S. Navy photo by Photographer's Mate Third Class Christopher B. Stoltz

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Outside The Box

One major objective of the Aerial Delivery Equipment Group (ADEG) is to keep backorders to an absolute minimum. Recently Item Manager Frank Svoboda came up with a great solution to relieve backorders for over seven-hundred and fifty grab hooks (NSN 4030-01-048-4046).

The backorders for the grab hooks were caused by a surge in demand from one-hundred per year to over six-hundred and fifty a year. This surge was a result of Operation Enduring Freedom (OIF) and the need for sling load operations in South West Asia (SWA). Also contributing to the dilemma was the previous manufacturer of the grab hooks had gone out of business. A new contract was awarded to a new manufacturer and deliveries were to begin in April of 2005. Matters did not go well for the manufacturer and consequently they requested a delay of the First Article Test (FAT). The reason for the request was that the manufacturer subcontracted the grab hooks to a foreign company that did not fully understand the specifications of the contract. Hence substandard grab hooks were produced and submitted to the manufacturer. The situation between the sub-contractor and the manufacturer took over 60 days to be resolved. This caused a delay in the first delivery originally scheduled for April 2005, was then rescheduled for late October 2005.

A Soldier breaks down 10K cargo systems into individual components

The grab hook is a critical repair component for the 10K cargo sling (NSN 1670-01-027-2902). This hampered operations most significantly in SWA because of two reasons. First over seventy-five percent of the seven-hundred and fifty backorders were from units deployed to SWA. Secondly the 10K cargo sling used extensively in SWA to transport food, repair parts for equipment, other combat necessities and humanitarian relief supplies. Since the units lacked the replacement grab hooks it prohibited the use of sling load operations; this was unacceptable to the ADEG.

Frank Svoboda, Item Manager of the grab hooks and 10K cargo sling came up with a smart solution. The 10K cargo sling is a system that consists of one apex fitting (NSN 4030-01-048-4045), four fiber ropes (NSN 4020-01-047-6114) and four grab hooks. Over seven thousand complete 10K cargo sling systems sat on the depot's shelves, this gave Frank an idea. He decided to break down two-hundred and fifty systems to the component level. In a money saving maneuver the ADEG decided to perform the breakdown themselves.

The rest is history. Two-hundred and fifty systems were shipped to Natick, MA and with the assistance of three Soldiers assigned to the Natick Soldier Systems Center; all two-hundred and fifty systems were broken down and packaged to be sent back to the depot in record time. All the backorders were filled, with over two-hundred grab hooks to spare. This quantity should meet demands until deliveries begin this month, if not the ADEG will continue to break down systems to fill any grab hook requirement until deliveries finally begin.

Frank Svoboda is an Item Manager on the Aerial Delivery Equipment Group

Riggers, from the Combined Joint Special Operations Task Force - Afghanistan, finishing packing school supplies, Afghanistan flag stickers and hand-cranked radios for a humanitarian assistance drop on July 4 during Operation Independence. Special operations forces received the supplies on the ground in southern Afghanistan after capturing two insurgent leaders five days earlier. The drop was designed to give the forward- based SOF items to hand out to villagers who were previously living under Taliban oppression. (Photos by Capt. Linda White, CJSOTF-A Public Affairs)

Photo Gallery

Two CH-53E Super Stallions from Marine Medium Helicopter Squadron 166 (reinforced), Marine Aircraft Group 16, carry decommissioned assault amphibious vehicle using their dual-point external lifting system over the barren desert near Al Asad, Iraq, Jan. 9, 2005. The inoperable vehicles were set on the desert floor to be used as targets for aircraft of the 3rd Marine Aircraft Wing. U.S. Marine Corps photo by Staff Sgt. Chad McMeen

WWII Parachuting

The following is adapted from archives of the U.S. Army Quartermaster Museum, Fort Lee, Virginia:

Time: 1944; The plane's nosing over, heading down towards the jungle. Eyes keep searching jungle trees for a clearing. Suddenly — a tiny open patch in the forest. A soldier stands by an open door. The C-47 swoops over the clearing. He pushes out the loaded chutes.

Down they go — white and colored dots heading for the target. A generator, parts for a truck motor, and an Army field range were in those bundles.

Wicker-basket chutes settle. Wrapped in cotton, surrounded by rice husks, are delicate medical supplies and instruments, urgently needed by the jungle fighters. The packs settle nicely and they're OK — because the bundles were packed expertly by men who know their jobs. The cargo plane heads home.

This trip is an everyday experience for the CBI (China-Burma-India) flying Quartermasters, self-styled "Bundles for Burma Boys." These QMs are members of a battalion of QM truck drivers, retrained in Northeast India to air-supply men and installations in country inaccessible to standard land supply routes.

The battalion is the basic organization conducting air-dropping for the Services of Supply in Northeast India. Theirs is no routine supply job. Besides supplying clothing and ammunition, they drop delicate medical supplies and instruments, heavy operating tables, blood plasma, fresh meats and vegetables, tons of sensitive wet gun cotton, dynamite, nitrostarch, and TNT. Along with food they've parachuted typewriters, radios and parts, motors, lights, generators, field ranges, rifles, machine guns, mail, tank and truck parts. They also packed and "pushed over the side" the first 75mm pack howitzers known to have been parachuted in the theater — all with extremely few losses, and in some cases no losses at all!

When these "parachute-packing poppas" landed in India late in 1943, they didn't know a ripcord from a chute rope. They were good truck drivers, trained at Camp Van Dorn, Mississippi. And truck driving was the job they thought they'd do. But war makes strange demands and soon after their arrival their commanding officer was notified of their new assignment. Preparations had to be made.

A WWII Soldier completeing a jump

Training was based on experience. Information available on air-dropping and supply activities was crammed into a ten-day instruction period. The unit was packed off to drop supplies in the Northeast India sector.

In early operations everything was done by trial and error. Practically no manufactured equipment was available. What they used was improvised, tested, and improved.

For an air-dropping container a Chinese-American officer suggested the use of a bamboo "country" basket, not unlike a wicker clothes hamper. Natives constructed baskets and they were covered with burlap (hessian cloth) and strengthened with ropes to which the parachute was fastened. So well did this container work that, in various sizes and shapes, it was the standard container for packing supplies.

Recently, in addition to the basket, standard British paratroop equipment, as well as that of our own Army, has been made available. It's used to augment the basket pack for special or unusual operations.

Packing in standardized containers isn't always the answer. For dropping 55-gallon oil and gasoline drums, the truckers lashed drums together, padding them with sacks of rice husks as bumpers, suspending them by multiple chutes.

Similarly, two-wheeled ammunition carts were too bulky to load and too large to drop through the plane door. Mechanics cut the wagons into manageable sections, fitted them with bolts and braces for reassembly by receiving troops, and parachuted the carts over the side.

Sometimes the rigs get a little whimsical. When a Chinese or American unit wins a particularly tough fight, or when there's a feast day or a holiday, parachutes blossom all over the fighting units. These packages bear gifts of beef, or live ducks, chicken, or pork, and even crates of fresh eggs.

Almost everybody in the battalion can do other jobs. There's constant personnel shifting in the organization so men can "learn by doing" each of the outfit's specialized jobs. The former truck divers are virtually operating a sub-depot, handling rail and vehicle unloading, warehousing, procurement, stock records, special

packing, ammunition storage, and parachute packing and reclamation.

Native labor is used on the less technical and less skilled work. Training and experience made the "Bundles for Burma Boys" valuable as teachers. They have instructed U.S. Army officers and personnel of the British Army in air-dropping methods. Recently, another QM Truck Company has been trained

Parachute drops during WWII

and furnishes men who ride the cargo ships and "kick" cargo overboard.

When the North Burma Campaign opened, flexibility of personnel made it possible to start operation of another air-dropping station and subdepot. Two companies moved to another air strip, and using another squadron of Troop Carrier planes, the new field was instrumental in nearly doubling tonnage dropped.

Packaging bundles and loading planes must always be done carefully but with utmost speed. Expensive, highly vulnerable equipment of the Air Force Cargo Squadrons cannot be allowed to remain idle, or long-exposed to enemy eyes on the ground. Planes must be in the air the maximum time possible. When a cargo ship lands, the QMs are ready. Rarely do ships have to wait for supply loads.

Operational problems have, of course, arisen. As the volume of dropping increased, so did the necessity for increasing the payload of each plane. Experimentation and modification resulted in improved containers and methods. Work is going on with the goal of more supply tonnage and less packing weight to each load — all to arrive on the target in first-class usable condition.

Evidence of air supply's significance comes from the staff of the former commander of the CBI, General Stillwell: "Air supply has undoubtedly been one of the greatest single factors contributing to the success of the North Burma campaign. Conditions on lines of communication, particularly during the monsoon season, have resulted in almost total dependence upon air drops and landings for support of the entire force in forward areas. From a tactical standpoint, certain operations have been successfully accomplished, which without air supply, would have been difficult, if not impossible."

Men for Merrill's Marauders were trained in parachute supply by Burma QMs. That their instruction was good can be deduced from this story told by two former Marauders:

"At Napumga, a village in Burma, we were trapped 14 days, cut off from all supplies — even water. The village was on a hilltop, an area of only about 100 square yards. Japanese were on all sides and we held the top.

"For all 14 days we were supplied by air. The area was so small that the planes had to come down to about 75 feet to drop supplies. If they were higher, they would miss the hilltop, and equipment would fall to the Japanese waiting below.

"There wasn't any cleared area. They had to drop equipment among our foxholes while we crouched to avoid getting hit.

"We didn't have any howitzers with us, so we called back for some 75mms. We didn't know how they would deliver them, because those babies are plenty heavy. But they broke them down and dropped them right on the crest. With those pipes we gave those Japanese hell and finally got out OK."

We are proud to feature articles by the renowned para-historian Jim Bates. His articles featured in this magazine provide a historical perspective on the evolution of Aerial Delivery.

Delivery Sechedule

NSN	Noumenclature	QTY	Start	Ending
167000063450	RIP CORD,PARACHUTE	199	Dec-05	
167000086729	TABLE,INSPECTION,PA	500	Dec-05	Aug-06
167000086778	PACK,PERSONNEL PARA	3000	Oct-05	Jan-06
167000218118	STRAP,PILOT CHUTE	5998	Jan-06	Feb-06
167000708447	RISER EXTENSION,PAR	9001	Nov-05	Nov-06
167000733488	DEPLOYMENT BAG,PARA	363	Nov-05	Feb-06
167000872610	PARACHUTE,CARGO	1172	Nov-05	Jun-06
167000892421	PARACHUTE,RESERVE,P	1002	Dec-05	Feb-06
167001007856	RISER EXTENSION,PAR	23002	Nov-05	Nov-07
167001016784	PARACHUTE,CARGO	560	Oct-05	Dec-06
167001027290	SLING,CARGO,AERIAL	2100	Oct-05	Oct-07
167001097881	RELEASE,CARGO PARAC	451	Oct-06	Apr-07
167001162237	CLEVIS ASSY	64995	Dec-05	Jan-07
167001227799	HARNESS,PARACHUTIST	12067	Oct-05	Sep-06
167001304300	PANEL ASSEMBLY,MAIN	400	Oct-05	Dec-05
167001306210	PARACHUTE,PERSONNEL	600	Oct-05	Dec-06
167001330327	CANOPY,PERSONNEL PA	280	Oct-05	Jan-07
167001330328	RIP CORD,PARACHUTE	2403	Dec-05	Jun-06
167001330328	RISER EXTENSION,PAR	100	Jan-06	Feb-07
167001330374	LOOP,CLOSING,MAIN	1500	Nov-05	Mar-06
167001330374	LOOP,CLOSING,RESERV	4800	Oct-05	Dec-06
167001330374	RIPCORD,MAIN RELEAS	70	Jan-07	Apr-07
167001330374	LINES,CONTROL	80	Nov-07	Mar-08
167001332391	CANOPY,PERSONNEL PA	1030	Oct-05	Nov-09
167001334759	DEPLOYMENT BAG,PARA	285	Dec-05	Jul-06
167001436479	PACK,PERSONNEL PARA	3499	Dec-05	Aug-06
167001468917	RIPCORD,MODIFIED	1201	Oct-05	Nov-05
167001476306	STATIC LINE,PERSONN	17500	Oct-05	Mar-06
167001493641	LINK ASSEMBLY,SMALL	399	Oct-05	
167001526329	LOCKING LOOP ASSEMB	23800	Oct-05	Jan-06
402001047681	FIBER ROPE ASSEMBLY	3000	Oct-05	Aug-07
402001047681	FIBER ROPE ASSEMBLY	1400	Oct-05	Jul-07
402001338330	ROPE ASSEMBLY,INSER	140	Dec-05	Mar-06
403000678856	SHACKLE	3000	Dec-05	Feb-06
403001048404	SHACKLE ASSY	601	Oct-05	Dec-05
403001048404	GRAB HOOK ASSY	3201	Oct-05	Jun-06
403001048404	GRAB HOOK ASSY	800	Oct-05	Nov-05
534000937027	STRAP,WEBBING	1173	Oct-05	
536501354893	SPACER,PLATE	100	Nov-05	Feb-06

Equipment Forecast

Hardware

NSN/NIIN	ITEM NAME	QUANTITY
5340003776642	SNAP HOOK	5100
1670004345783	COUPLING ASSEMBLY	30
1670013041057	PANEL ASSEMBLY	500
1670011699155	ROLLER PAD	43
1670000724941	SEPARATOR	100
1670013288014	MODIFICATION KIT	250
1670015080402	CONNECTING LINK	375
1670014577901	SPRING ASSY EJECTOR	1000
1670011699154	RAIL TYPE V	66
1670000322705	PLATE TENTIONS	200
1670001319695	QUCK RELEASE, PERS	75
1670014238508	PANEL ASSEMBLY	30
1670014875462	LINK CONNECTOR	250
6645011083457	TIMER MOVEMENT	2000
1670015237246	LOW COST CONATINER	1000
1670001099238	TIMER DELAY	1000
1670014402991	TIMER ASSEMBLY	40
1670009370271	TIE DOWN	55001
1670014406564	LINK PARACHUTE	120
1670014875466	STRAP CONNECTOR	250
1670012595932	PARACHUTE ASSEMBLY	407

Parachute

NSN/NIIN	ITEM NAME	QUANTITY
1670003600475	RISER EXTENSION, PAR	50
5340003600560	STRAP WEBBING	3500
1670008152727	DEPLOYMENT BAG PARA	950
1670014204256	PARACHUTE RESERVE	188
1670014994464	STATIC LINE, CARGO	775
1670014996573	PARACHUTE PERSONNEL	350
1670009992658	PARACHUTE CARGO	800

Feature

M-1 Parachute Release: A Rollover Problem

In preparation for an airborne assault mission, you are on the final practice run one week from H-hour. Through the noise of the aircraft, you hear the loadmaster yell “10 seconds to drop.” As the signal light turns green, you watch the rigged HMMWV (High Mobility Multi Wheeled Vehicle) exit the aircraft. During this time, you are visualizing the events that need to take place when you reach the ground and prepare the HMMWV that you have rigged with drive off aids for quick recovery and use. Now it is your turn to jump. You exit the aircraft, do a dynamic PLF (parachute landing fall), put your weapon into action, simulate destruction of your parachute, and double time toward your HMMWV. You crest the hill to where it landed, here, much to your shock and dismay lies your HMMWV upside down with parachutes still attached.

The air drop community has experienced this load dragging and turnover for a number of years

The M-1 Parachute Release is designed to prevent this by separating the cargo parachutes from the load upon ground contact. The cargo parachutes are joined to the M-1 release by connectors (shown in figures 1 – 6 below) that are held in place by a toggle mechanism. Initially, before parachute deployment, this toggle mechanism is locked in place by a mechanical timer mechanism. Upon exit from the aircraft an arming wire is pulled from the release timer causing it to arm. After approximately 13 seconds, in which time the parachutes deploy, the timer winds down and releases the toggles allowing the release body to tilt. Upon ground contact the M-1 Release tilts. When the release body reaches a 15-degree angle to the platform, the toggle assembly will release the parachute connectors.

Under some conditions, the M-1 has failed to release the parachute connectors and the load is pulled over. It is possible, if the parachute canopy remains inflated (i.e.; high wind) that the release will not experience a 15-degree tilt that would allow it to release the parachutes. In this instance, even if the timer block assembly dropped, there is a chance that the parachute connectors will not release and the load could be overturned.

There are two parachute connector assemblies currently used with the M-1 Release.

The original (part number 11-1-150, NSN 1670-00-400-2771) shown in figures 1 - 3, has the Arm Connectors (fingers) at-

Figure 1

Figure 2

Figure 3

tached at two pivot points. Many of the M-1's still have this type.

As shown in figures 4 – 6, the other (new) parachute connector (part number 11-1-3718-1, NSN 1670-00-400-2771) has different design on the Arm Connectors (fingers). They are attached at one pivot point versus the two pivot points on the original connector. This assembly applies the parachute loads uniformly to the upper suspension link plus gives the parachute connector a greater range of motion and prevents binding and twisting of the retainer clamp.

Figure 4

Figure 5

Figure 6

The original connector can still be used on the M-1 Release as long as they are serviceable in accordance with the technical manual. The two different connectors shall not be mixed on the same M-1 Release.

The new connectors can also be used on the M-2 Parachute release. As with the M-1, the two different connectors shall not be mixed on the same release.

To obtain performance data and ascertain operability of the newer connector, 100 each have been shipped to the ILSC Aerial Delivery Equipment Group Liaison Office at Ft. Bragg, N.C. These connectors are being issued to the heavy drop units for use and evaluation. A special report form will be given to the units to fill out when equipment is dropped using either type of parachute connector. This data will be collected and evaluated by the ILSC to determine what (if any) upgrades/fixes or replacements are required for the M-1 Release.

Frank Cruikshank is an Equipment Specialist on the Aerial Delivery Equipment Group

Technical Manual Updates

TM 10-1670-268-23&P (Adding ECDS Platform)

TM 10-1670-276-23&P (Complete Revision)

TM 10-1670-281-23&P (Complete Revision)

TM 10-1670-287-23&P (CH 2 Completed at Tech Pubs)

TM 10-1670-296-20&P (Adding ECDS Net)

TM 10-1670-296-20&P (Adding EPJS Heavy)

TM 10-1670-327-23&P MC-6 (Draft Review)

TB 43-0002-43 (review)

Provided by CW3 Jimmy Taylor active duty military liasion to the Aerial Delivery Equipment Group

Feature

Riggers Support The War Fighter's Mission

LOGISTICS SUPPORT AREA ANACONDA, Balad, Iraq, July 16, 2005 - Inside a dark, spacious warehouse on Logistics Support Area Anaconda, nine Soldiers are making their contribution to an upcoming operation taking place hundreds of miles away.

These Soldiers are parachute riggers with the 623rd Quartermaster Company is support of the 372nd Transportation Company, 129th Corps Support Battalion, 507th Corps Support Group, and their mission - to prepare two-weeks worth of rations and water to be air dropped to sustain operations in Iraq.

"Right now we're loading Meals Ready to Eat in for ongoing operations," said Staff Sgt. Matthew Hanrahan, the air operations sergeant for the 129th Trans. Co. "The most important thing is we're taking people off the road by doing this. The key is sustaining the people who are setting up this operation with 15 days worth of food."

Although the operation is still in the works, the riggers are getting a head start by preparing the pallets of MREs before it begins.

"We'll be dropping almost 4,000 cases of MREs," Hanrahan said. "This is the only mission that has been dictated to us so far. As the operation moves on, that will dictate what we drop."

PFC. Thomas Hutchinson, a parchute rigger from the 623rd Quartermaster Company, 1st Corps Support Command, gathers the tops of the cargo net to attach it to the parachute on the top of the pallet of MREs scheduled to be dropped for an upcoming mission

The supplies being loaded aren't the only ones that will be dropped during the course of the operation. The riggers are prepared to get more supplies ready as time goes on.

"Once [the unit we're supplying] gets established," Hanrahan said, "we'll move on to support a different group."

Since the beginning of their deployment, the Soldiers of the 623rd Qm. Co., have had little opportunity to serve as riggers. Much of their time is spent on the roads as convoy gun-truck escorts.

Though their talents are in high demand, the Soldiers are excited to support the war effort by doing the job they enlisted to do.

"I feel like I'm making a difference," said Pfc. Thomas Hutchinson, a parachute rigger with the 623rd Qm. Co. "I think it's necessary for us to do air drops to move on with mission of helping the Iraqis take control."

"[The Soldiers] are very happy to be doing this." Hanrahan said. "They're all excited to come off the road and actually do their job. It's very gratifying to know your job is supporting the war fighter."

Successfully preparing a pallet of supplies for an airborne supply drop requires the utmost attention from the Soldier rigging it.

"First you get an empty board and ties along with honeycomb cardboard padding to help dissipate the weight of the cargo," said Spc. Jameel Miller, a parachute rigger with the 623rd Qm. Co. "Then the cargo net is wrapped around the supplies and from there we tie up the load to encase it all. Finally we put the parachute on and tie it up and that's all you need."

The riggers of the 623rd Qm. Co. know the importance of the mission they've been tasked, and couldn't be happier about what they're doing for the Army and for Iraq.

"We're parachute riggers," Hanrahan said, "this is our job."

By Spc. Jerome Bishop 1st COSCOM Public Affairs

ARMY CIVILIAN CREED

For many years, the Army civilian has performed a vital role in the success of the Army. They serve beside the Soldier providing critical support and skills necessary in meeting the Army's needs. The Army Civilian Creed was created just this year to provide a level of identification and purpose for the Army Civilian and to honor those serving in Civilian positions.

I am an Army Civilian – a member of the Army Team

I am dedicated to the Army, its Soldiers and Civilians

I will always support the mission

I provide stability and continuity during war and peace

I support and defend the Constitution of the United States

and consider it an honor to serve the Nation and its Army

I live the Army values of Loyalty, Duty, Respect, Self-less Service, Honor, Integrity, and Personal Courage

I am an Army Civilian

The History Behind The First Female Riggers

The following is an e-mail written by LOUIS "Pete" PETERKA Colonel, U.S.Army (Retired.) in response to a question regarding the first female riggers. The e-mail was submitted by the Parachute Riggers Red Hat Chapter (www.redhatchapter.com).

"Greetings to all! With your indulgence I will relate the why's, where fore's and circumstances that brought about introducing female soldiers into the Airborne and subsequently into the Rigger Field.

In late '73 the Rigger field was experiencing a severe shortage of riggers throughout the world. There was not a single airborne unit that had 100% strength in the parachute maintenance field and the Airborne Department was running classes at less than 50% of the department's capabilities. The handwriting was on the wall that the role of the female soldier was going to expand, and expand it did. After discussing the situation with General Dean-Van Lydegraph, then Commandant of the Quartermaster School, I made a trip to D.C. to discuss the shortage with the DCSPERS and learned that recruiting was slow and the volunteers just were not coming out of jump school as fast as we needed and fewer were volunteering for Rigger School.

While in Washington, I met with the top WAC General, unfortunately I have forgotten her name, and we had a long discussion on the feasibility of introducing WACs into the Rigger Field. It just so happened that every other country had women working in parachute maintenance, although in some, if not most, they were not required to be airborne qualified. It was obvious that women have greater dexterity in sewing machine operations and there was nothing to preclude females from excelling in the pack process. Women had already proven their ability in this field in other armies of the world. The general suggested that we run a test case but was a bit hesitant about the individuals having to undergo airborne training as a pre-requisite. At the time I took the position that airborne training was a necessary qualification for anyone, male or female, desiring to undergo parachute rigger training. I left the general's office with the assurance that the general would take the matter under advisement. The next thing I knew, about two months later, I was advised that the first female soldiers were at Fort Benning undergoing airborne training. In early 1974 Pvts Rita Johnson and Joyce Jutach reported in to the Red Hat as students in the PMAD Course. Both soldiers did exceptionally well in the course, albeit some of the male counterparts had a hard time accepting them as equals. On April 1, 1974 both female soldiers graduated from the PMAD course. I jumped with both soldiers upon completion of the pack phase, in fact I exchanged parachutes with Pvt Johnson. After all, her parachute was packed under more stringent scrutiny than mine, my parachute having been packed by one of the old hands. To the best of my knowledge both soldiers went on to airborne units and performed their duties as expected.

I did catch a lot of flak from some of the old airborne types... having been on jump status for over 21 years I took it all in stride. One of the most vocal complaints came from one of the instructors at the Airborne School at Fort Benning, and I did receive several from that post. His complaint wasn't that the women did not have the capability to be a parachute rigger, his complaint was that they (the females) did not have to do as much P.T., as the men. They did a special push-up and did not have to run as far. My suggestion to him was that perhaps we should have different designs for the male vs. female jump wings. I proposed that we allow the females to have the standard jump wing, i.e., parachute canopy surrounded with wings, and for the male paratroopers a "parachute canopy with flexed biceps". This he did not like and hung up on me. After that there were no more objections voiced from Fort Benning or elsewhere.

This is not to say that all went rosy after that, it didn't. We had our usual difficulties when male and female soldiers were thrown together, all of these difficulties were of a personal nature, nothing professional. We did have one slight problem, seems our female parachute riggers did not take to the kind of activity that went on in the female barracks and proceeded to correct the situation. This brought fire from the company commander and special arrangements had to be made to house the female parachute riggers.

I retired as Director of the Airborne Department 31 years ago. All of the above is based on my total recall."

LOUIS "Pete" PETERKA
Colonel, U.S.Army (Retired.)

Feature

Long-haul Truckers of the Sky Save Lives

U.S. Marines and Army troops on the ground in Afghanistan receive support as part of Operation Vigilant Sentinel

BAGRAM AIRFIELD, Afghanistan, Aug. 26, 2005 – The C-130H crew prepares for a combat landing touch down on an Afghanistan runway that's little more than a dirt strip.

Their mission – a double-shuttle air-land mission in the eastern region of Afghanistan to resupply Army and Marine troops on the ground who are helping the Afghan Army prepare for free elections Sept. 18. The mission, which included the delivery of 39,310 pounds of cargo, is just one of numerous deliveries made throughout Afghanistan.

"The support we provided to the Marines was part of Operation Whalers a subset of Operation Vigilant Sentinel, and we continue to support the Army as part of Vigilant Sentinel," said Maj. Jay Brawka, 745th Expeditionary Airlift Squadron aircraft commander and deployed mission commander.

The C-130 Hercules primarily performs the tactical portion of the airlift mission and its operational capabilities from rough terrain and dirt strips makes it prime transport for air and land drops in hostile areas. These assets led to the decision to have the C-130H aircraft and crews from the 745th EAS, a squadron under the 379th Expeditionary Wing, temporarily relocate to Bagram Airfield, Afghanistan.

"While here (Bagram), we remain on Bravo alert standby for Army, Marines and Afghan National Army(ANA) in support of Operation Vigilant Sentinel ensuring the success of this country's upcoming free elections," said Major Brawka.

The crew, which deployed here Aug. 10, has answered the call for supplies in the field on a near continuous basis since their arrival. Having a crew here in the war, closer to the areas that require the increased need of C-130H cargo drops, provides a quick reaction force to make sure

Members of the 745th Expeditionary Airlift Squadron, deployed from Dyess Air Force Base, Texas, load cargo in preparation for two air-land missions in a C-130H aircraft, supplying ground troops with equipment needed, to support Operation Enduring Freedom. U.S. Air Force photo by Airman 1st Class Desiree L. Hayden

The Backorder Report

In the turbulent world of Aerial Delivery item management, backorders occur for a variety of reasons. To those in need of the items, knowing what the reasons are and when they will be corrected is vital information. As a result, below is information regarding our top four backorders. This section features details as to what is being done to get the backordered items manufactured and out to the field.

Nation Stock Number	Nomenclature	Total Backorders	First Delivery Schedule	All Backorders Filled
1670-00-708-8563	Riser Extension MC1-D/E	7152	November 05	September 06
1670-00-176-1802	Cloth, Parachute Mending	6847	September 05	September 05
1670-01-476-3068	Static Line USL	2562	August 05	November 05
1670-01-330-3282	Ripcord, Parachute Main,MC-4	825	December 05	February 06

ITEM: Riser Extension MC1-1C/D 1670-00-708-8563.
ISSUE: The large number of backorders resulted from the male portion of the canopy release assembly not seating correctly and locking into the female portion. In addition, it was discovered that the drawings were incorrect and had to be redrawn.
RESOLUTION: New contracts have been awarded with first delivery scheduled for November 05. All backorders will be filled by September 06.

ITEM: Cloth, Parachute Mending NSN 1670-00-176-1802.
ISSUE: The cloth has a short shelf life of 5 years and a minimum buy quantity of 10,000 yards. As a result, requirements must be close to 10,000 yards prior to procuring this item.
RESOLUTION: A delivery of 12,000 yards in September 05 will satisfy all backorders.

ITEM: Static Line, Personnel, USL NSN 1670-01-476-3068.
ISSUE: There has been an unusual amount of damage to this item due to excessive abrasions because of the stiffness of the material resulting in an unforeseen increase in backorders.
RESOLUTION: We have received our first delivery of 1500 in August 05 and all backorders will be filled by November 05.

ITEM: Ripcord, Parachute, MC-4 Main NSN 1670-01-330-3282.
ISSUE: The delay in awarding the contract was caused by the lack of qualified manufacturers who could make the item to our specifications.
RESOLUTION: This has now been resolved and the item is on contract. First delivery will be in December 05 and all backorders will be filled by February 06

Pamela Wardwell and Richard Pickring are Item Managers on the Aerial Delivery Equipment Group

an interrupter mechanism so a machine gun could fire through the spinning propeller without damaging blades. Aerial combat became a truly serious matter and fragile fighter, observation, and bomber planes were shot from the skies more often.

In the last year of the four-year European conflict the U.S. entered the war and provided an American Expeditionary Force (AEF) in France, including a newly established Air Service, though the latter was ill-equipped and pilots were minimally trained to fly and had no aerial combat experience.

Military rear echelon aviation planners of most air elements felt that if inexperienced pilots were equipped with parachutes they would more likely jump from a damaged aircraft than try to fly to an air field behind their own lines.

Furthermore, the bulky parachutes of that time would detract from ability to move about in a cockpit and the extra weight would lessen the performance of low-powered planes. Parachutes were forbidden as flying equipment. However, when a German pilot ignored the prohibition, bought a personal static-line-deployed rig, wore it on combat missions, and successfully bailed out of his unmanageable plane, word spread quickly on both sides of the conflict and some pilots spent their own money for life-saving equipment. Germany decided that destroyed airplanes could easily be replaced but replacement pilots were difficult to recruit, their training was time-consuming, and financial costs were greater.

Parachutes were then authorized by most air services late in the war. However, military parachute inventories were extremely limited.

With war's end military parachute purchases were canceled, as an economy measure, though aircraft development continued, albeit slowly. Commercial air use was still in the future and global economic conditions limited the efforts of air-minded visionaries. Fortunately, parachutes were given attention by American, British, French, Italian, and German civilian and military organizations, primarily as a life-saving device. It was decades later before parachutes were developed for delivery of military battle personnel and supplies.

Before the end of the war in November 1918, the U.S. Army formed a Parachute Section in October at Wilbur Wright Field in Dayton, Ohio. The unit was soon transferred to nearby McCook Field, with its superior facilities for testing.

J. Floyd Smith and several others with parachuting experience were assigned to the new unit and in early 1919 Major E.L. Hoffman, was given command of the parachute development team.

Parachutes from around the world were drop-tested and it didn't take long to decide to replace so-called "automatic" static-line-deployed parachutes with manually operated freefall rigs that could be operated by a user after falling clear of a crippled machine. Leslie L. Irvin, who had a small parachute business in Buffalo, New York, submitted a canopy design when bids were solicited by the U.S. Army, but it was rejected because the canopy fabric was cotton and would be deployed by a falling jumper's weight, as done by balloon passengers.

Smith and others had advocated a "pack-on-the-back" that could be deployed by pulling a ripcord. Many designs from around the world were submitted to the new Parachute Section and tested, with most rejected. Some features were incorporated into a prototype Model "A" parachute with a 30-foot diameter silk canopy. It was stringently "dummy"-tested for strength and durability, including drops from planes falling in intentional spins.

Major Hoffman designated Leslie Irvin to make a live test jump. He was a well known parachutist and parachute-maker, with a lot of aviation background (his nickname was "Sky-Hi"). The parachute he was to use was made of silk and had been drop-tested eleven times and remained in airworthy condition. On April 28th, 1919 Irvin boarded a DeHavilland D-9 biplane piloted by Smith. The plane climbed to 1,500 feet and at 80 miles per hour Irvin jumped over the side, fell a couple seconds, and briskly pulled the ripcord handle from its harness-mounted pocket. In an eye-blink the canopy streamed out and filled in one and two-fifths seconds! After a canopy-first deployment and thumping opening Irvin's descent went well but on landing he broke an ankle when a wind gust swung him into a hard landing.

Several days later, while in the hospital, Irvin, was told the U.S. Army had awarded his firm an order for 300 Model "A" parachutes, with 28-foot silk canopies. This was the start of the Irving Air Chute Company. (A typographic error of adding a "g" to the Irvin name led to the company name and it remained so for many years.) Further jumps about a month later were made by Smith, who fell 500 feet before pulling his ripcord, and by Jimmy Russell, Sergeant Bottreil, and Jimmy Higgins making their first freefall jumps.

A significant milestone in parachuting had been reached.

The Model "A" evolved into the Model "S" parachute assembly that was the basis of parachute configurations for many years. The military C-9 canopy widely used currently is a copy of the Model "S" canopy.

The members of the original parachute section went on to distinguish themselves in various roles in the parachute segment of aviation.

We are proud to feature articles by the renowned para-historian Jim Bates. His articles featured in this magazine provide a historical perspective on the evolution of Aerial Delivery.

Air Force Senior Airman Brandon Alonzo, 317th Aircraft Maintenance Squadron load master, deployed from Dyess Air Force Base, Texas, directs a forklift loader to a C-130H aircraft, unloading supplies to ground troops in support of Operation Enduring Freedom. U.S. Air Force photo by Airman 1st Class Desiree L. Hayden

those in need of supplies to ensure the safety and security of the Afghanistan people have it. The crews have successfully executed these missions since their arrival.

"We're the long-haul truckers of the sky," said Maj. Clayne Bradley, 745th EAS navigator. "We get the stuff there so people can use it."

"The airlift community understands the importance of ensuring the beans, butter and bullets make it to the troops in the field on time, every time," said Maj. John Boccieri, 745th EAS pilot and tactics officer. "The Air Force, Army and Marines jointly plan these airdrops and utilize the high-altitude airdrop capabilities."

Airlift operations are essential on a historical scale as Afghanistan National Army forces gradually become self sufficient in maintaining the safety and security of the region and helping ensure free elections.

"The ANA have demonstrated their abilities with great success," said Lt. Col. James Donnellan, commanding officer of 2nd Battalion 3rd Marine Regiment. "The willingness and professionalism of the ANA to engage the enemy will ensure success for the security of Afghanistan."

In ensuring continued success, getting supplies where and when needed is critical. The supply request for cargo that need to air or land dropped originates with the unit requesting the supplies, Army or Marine units in the field. The request is routed through the unit's logistics chain to the Air Mobility Division at the Combined Air Operations Center. Once a final decision is made, Air Terminal Operations Center sends a message that sets all of the players in motion.

"Making these missions a reality relies on the joint efforts of the Afghanistan National Army forces, Army and Marine Corps and as well as many other players, including the ATOC; tower; intel; my air crew, maintenance technicians; Army parachute riggers and other support personnel," said Major Brawka. "We appreciate all of their contributions of and the help and support we have received from the people here at Bagram, especially the support we received from the 455th Air Expeditionary Wing – we couldn't get these missions done without them."

The duration of the mission here is dependent on the need in the field. But regardless of how long they are here, the joint, combined and coalition forces are committed to making it a success, according to leadership.

"In a few weeks, the people of Afghanistan will elect a National Assembly which will constitute a vote against continued violence and suffering and a vote for a free and prosperous future," said Maj. Gen. Jason Kamiya, Combined Joint Task Force 76 Commanding General. "The enemy, too, has choices to make: to peacefully and honorably reconcile with Afghanistan's national government and become part of Afghanistan's brighter future; or to continue to live in the shadow of continued military confrontation, violence, death and defeat."

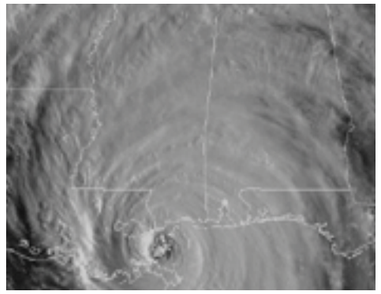
By U.S. Air Force Staff Sgt. Shanda De Anda 379th Air Expeditionary Wing Public Affairs

U.S. Air Force Senior Airman Johnny Rivera, 317th Aircraft Maintenance Squadron load master, deployed from Dyess Air Force Base, Texas, marshalls a C-130H aircraft, prior to dropping off supplies to ground troops in support of Operation Enduring Freedom. U.S. Air Force photo by Airman 1st Class Desiree L. Hayden

Feature

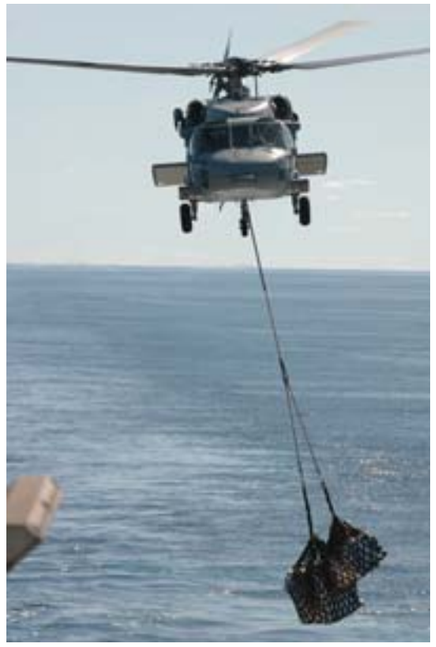
Aerial Delivery Equipment Group Supports Hurricane Katrina Effort

The Tank-automotive and Armaments Command (TACOM), Natick, Aerial Delivery Equipment Group answered the call for the urgent need for five hundred and sixty five 25K Cargo Slings and ten 10K Helicopter Cargo Nets.



A satellite image of Hurricane Katrina impacting the Gulf coast has been superimposed with state boundaries by the National Oceanic and Atmospheric Administration.

The cargo sling assembly provides the capability to move cargo loads from point to point using rotary-wing aircraft. The sling sets consist of an apex fitting and four nylon rope legs. At the lower eye of each leg, a grab-hook is attached. The grab-hook has an 8-ft chain that allows for 0- to 4-ft adjustments. According to news reports, the slings were used to transport hundreds of sandbags to close a 200-foot gap (see photo bellow) in the 17th street canal levee. The cargo net was also requested, which provides the capability to transport general cargo. The cargo net consists of an octagon shaped net and 4 sets of lifting legs per net.



10K Cargo Nets are being used in support of the hurricane relief effort

Army National Guardsmen Spc. Clint Aucoia from Morgon City, La., and Pfc. Christopher Tiffit from Spokane, Wash., attach cargo hooks supporting large bags of sand to a CH-47 Chinook helicopter in New Orleans, La., on Sept. 7, 2005. The humanitarian assistance operations are a joint effort led by the Department of Defense in conjunction with the Federal Emergency Management Agency. DoD photo.

Each 11-ft leg is made from 1 3/4-inch nylon webbing stacked in 4 layers and is attached to the outside of the net. An apex fitting is attached to each leg assembly by a nylon tether cord and a hook is attached to the apex. As always, the Aerial Delivery Equipment Group stands ready to provide the very best equipment possible in support of this enormous effort.

Mattox Turman is the Team Leader for Cargo Parachutes on the Aerial Delivery Equipment Group

Parachuting Milestone: Freefall

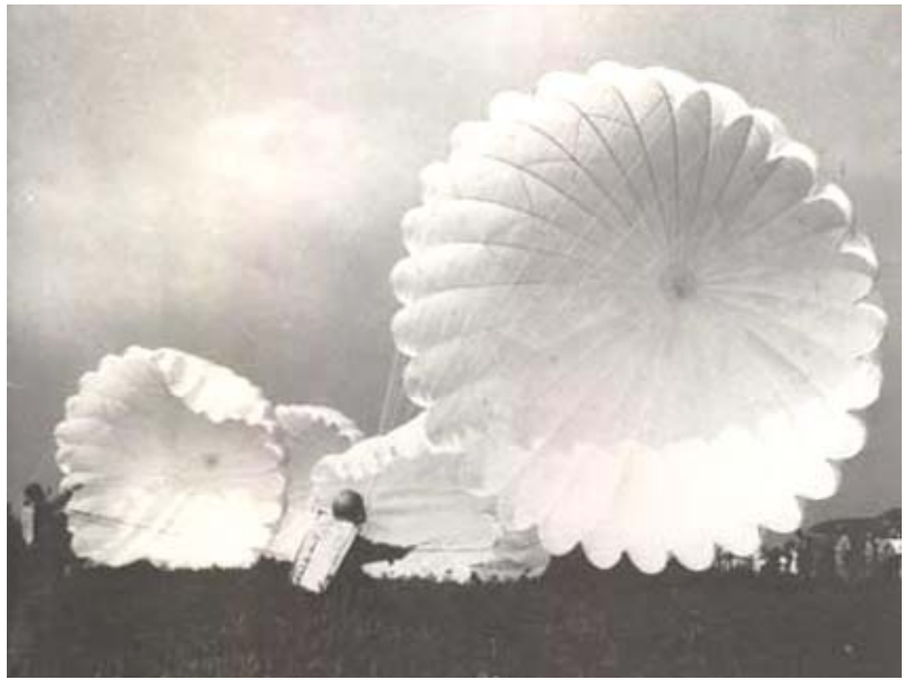
It wasn't until late in the 1914-1918 Great War that engulfed Europe — during which powered aircraft pioneered aerial combat between airplanes of opposing nations — that serious consideration was given to saving the lives of pilots.

Before low-speed rickety planes ruled the skies in that major war, ground forces in huge numbers fought ferociously week after week to rout enemy units from positions by using artillery weapons and infantry soldiers equipped with rifles, pistols, bayonets, and hand grenades, supported by machine gun and mortar crews and small armored vehicles called tanks. Advances and retreats in battles for destroyed lands see-sawed repeatedly, with thousands of lives lost by defending and offensive ground forces.

That struggle changed dramatically when airplanes became a war tool, after proving capable of brief heavier-than-air powered flights by the Wright brothers about a decade earlier in December 1903. However, before spindly air machines could alter warfare, tethered military observation balloons were used for spotting enemy artillery positions and troop movements. That practice was actually put to use during America's Civil War for the same purpose.

Balloon passengers, equipped with maps and air-to-ground radio communication, were early victims of marauding fighter plane pilots who used incendiary bullets to set fire to hydrogen-filled sausage-shaped balloons.

Technicians quickly adopted parachutes as a life-saving device, packing them into containers mounted on the exterior of the balloon basket, devising a passenger harness with a long sturdy line connected to a parachute in the stowed container. An endangered passenger could leap from the basket, the canopy would automatically deploy, and the user would dangle beneath a parachute canopy to safety on the ground below.



Silk parachute like these used in WWII were very similar to Irvin's model A parachute

In the first year of the conflict, planes proved their reconnaissance usefulness to be far superior to observation balloons. It wasn't long before chivalry disappeared, before respect for a fellow airman ceased to exist. Opposing pilots took to using handguns to shoot at enemy pilots. In short order machine guns were mounted on the top wing of biplanes and pilots had to work a control stick with one hand and fire a machine gun with the other. Proper gun sighting was extremely difficult. A clever German aviation engineer contrived